Sauget Area 2,
Sauget IL

Nabil Fayoumi
04/07/2004 08:23 AM

To: sdsmit@solutia.com
cc: cenglis1@ch2m.com, l.glen.kurowski@monsanto.com, Sandra.Bron@epa.state.il.us, Kenneth Bardo/R5/USEPA/US@EPA
Subject: Fw: Sauget Site R Groundwater Migration Control Memo

Steve,

Attached are the U. S. EPA's comments for Solutia's Site R Groundwater Migration Control Memorandum dated March 8, 2004. Please submit your responses to the attached comment by April 19, 2004. If you have any questions, please contact me at 312-886-6840.

Sincerely,

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Nabil Fayoumi
Remedial Project Manager
Superfund Division
U. S. EPA - Region 5
Phone: 312-886-6840
Fax: 312-886-4071
E-mail: fayoumi.nabil@epa.gov
----- Forwarded by Nabil Fayoumi/R5/USEPA/US on 04/07/2004 08:02 AM -----

Peter.Barrett@CH2M.com
03/31/2004 11:07 AM

To: Nabil Fayoumi/R5/USEPA/US@EPA
cc: Chris.English@CH2M.com, Ning.Li@CH2M.com, Clair.Morris@CH2M.com
Subject: FW: Sauget Site R groundwater control memo

Nabil - I had our senior groundwater expert review the recent Technical Memorandum produced by SolutiaURS. The TM contains groundwater contour maps for the Groundwater Migration Control System being installed at Sauget Area 2.

Please call with any comments. Note that I will be out in Honolulu next week, but I shall be in the office there on Friday.

Regards - Peter

-----Original Message-----
From: Goodson, Bob/SAN
Sent: March 31, 2004 10:30 AM
To: Barrett, Peter/STL
Subject: Sauget Site R groundwater control memo

Here is my review of the Solutia memorandum of March8, 2004. The quality of the contouring is abysmal There is some hint of a trough, but the mapping is so bad that I can't say the trough is continuous in all maps All of these maps need to be re-drawn by someone who understands groundwater hydraulics

Bob Goodson, PG
Senior Technologist

Review TM.doc

Review of the Sauget Area 2 GMCS Groundwater Control Memorandum of March 8, 2004

PREPARED FOR: Peter Barrett/STL

PREPARED BY: Bob Goodson/SAN

DATE: March 31, 2004

I have reviewed the referenced memorandum from Jorge Garcia/Solutia, including the attached table and figures. There appears to be a trough in the potentiometric surface in all of the maps, however, the quality of the contouring is so poor that it becomes difficult to evaluate the continuity of the trough.

Comments

1. The contouring does not take into account the hydraulic impacts of the partially completed barrier wall or the effects of pumping of the three extraction wells. The maps over-simplify the shape of the potentiometric surface. The contouring should show the effect, where present, of the vertical discontinuity formed by the barrier wall.
2. Interpolation for the contouring effort appears to be inconsistent, at best, and incorrect at times.
3. Contours should be added in the vicinity of the extraction wells.
4. The maps consistently ignore the water surface elevation at piezometer P2-E, which indicates that the cones-of-drawdown from extraction wells EW-1 and EW-2 may not overlap.
5. Well/piezometer B-22A was not measured during this exercise. Why not and why was included on the maps?
6. Comments on specific figures:

Figure 1. - No specific comments other than the global comments described above.

Figure 2. - No specific comments other than the global comments described above.

Figure 3 - Closing of the 379-foot contour at the river's edge is incorrect. It is not possible for the potentiometric surface to be higher than measured in the two piezometers on the river side of the wall since the river is at yet a lower elevation.

Figure 4 - The placement of the 379-foot contour needs to be moved to accommodate the water level piezometer B-26B.

Figure 5 - No specific comments other than the global comments described above.

Figure 6 - The placement of the 379 and 378.80-foot contours needs to be moved to accommodate the water level piezometer B-26B. The placement of the 378.80-foot contour needs to be moved to accommodate the water level piezometer P-4E.

Figure 7 - The placement of the 382-foot contour needs to be moved to accommodate the water level piezometer B-29B.

Figure 8 - No specific comments other than the global comments described above.

Figure 9 - No specific comments other than the global comments described above.

Figure 10 - As contoured, this map shows that the south end of the barrier wall is totally ineffective and that extraction well EW-3 was not pumping.

These maps need to be re-drawn by someone who understands groundwater hydraulics.